

Claims

- [c1] 1. A driving circuit for a display device having a plurality of pixels, wherein the driving circuit is used for driving the light-emitting device in each pixel, the driving circuit comprising:
- a light-emitting device driving unit coupled to the light-emitting device for providing a driving current to the light-emitting device selectively; and
- a discharging unit coupled to the light-emitting device driving unit for discharging the light-emitting device according to the voltage level of a control signal as soon as the light-emitting device driving unit provides a driving current to the light-emitting device.
- [c2] 2. The driving circuit of claim 1, wherein the driving circuit may further include a light-emitting device selection unit coupled to the light-emitting device driving unit for receiving a scan signal and a data signal, and when the scan signal and the data signal are at logic level "1", the light-emitting device selection unit enables the light-emitting device driving unit to provide a driving current to the light-emitting device.
- [c3] 3. The driving circuit of claim 2, wherein the control signal uses the scan signal from the next pixel.
- [c4] 4. The driving circuit of claim 3, wherein the discharging unit discharges the light-emitting device when the scan signal on the next pixel is at a logic level "1" or a high voltage level.
- [c5] 5. The driving circuit of claim 1, wherein the discharging unit is coupled to a ground potential so that electric charges are discharged from the light-emitting device to the ground.
- [c6] 6. The driving circuit of claim 1, wherein the discharging unit is coupled to a negative voltage so that electric charges are discharged from the light-emitting device to the negative voltage terminal.
- [c7] 7. The driving circuit of claim 1, wherein the discharging unit is a transistor and the transistor is switched on to discharge the light-emitting device according to the voltage level of the control signal.

[c10] 10. The driving circuit of claim 1, wherein the light-emitting device includes an organic light emitting diode (OLED).

[c12] 12. A display device having a plurality of pixels, wherein each pixel has a driving circuit for driving the light-emitting device inside each pixel, the driving circuit comprising:

- a light-emitting device driving unit coupled to the light-emitting device for providing a driving current to the light-emitting device selectively; and
- a discharging unit coupled to the light-emitting device driving unit for discharging the light-emitting device according to the voltage level of a control signal as soon as the light-emitting device driving unit provides a driving current to the light-emitting device.

[c14] 14. The display device of claim 13, wherein the control signal uses the scan

